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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/534,950

05/16/2005

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EXAMINER

O HERN, BRENT T

ART UNIT

PAPER NUMBER

1783

MAIL DATE

DELIVERY MODE

04/16/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/534,950	<b>Applicant(s)</b> SAITO ET AL.	
	<b>Examiner</b> Brent T. O'Hern	<b>Art Unit</b> 1783	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,2,5 and 7-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5 and 7-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claims***

1. Claims 1-2, 5 and 7-9 are pending.

### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/29/2010 has been entered.

## **WITHDRAWN REJECTIONS**

3. All rejections of record in the Office action mailed 10/29/2009 have been withdrawn due to Applicant's amendments in the Paper filed 1/29/2010.

## **NEW REJECTIONS**

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 103***

5. Claims 1-2, 5 and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oles (US 4,145,451) in view of Qiang, *The production of Starch modified by alkenyl succinic anhydrides and its use in food industry* (2000), Cain et al. (US 5,756,143) and Hamm et al. (US 2003/0203096).

Regarding claims 1, 5 and 8-9, Oles ('451) teaches an acid emulsified semi-solid mayonnaise-like food (*See col. 2, ll. 60-69 and col. 1, ll. 62-68, including acetic acid/vinegar.*) comprising starch (*See col. 2, l. 67.*), thickening polysaccharide with a content of 0.3 to 0.7% by mass (*See col. 2, l. 66, where the polysaccharide gums content is from 0 to 15%.*), edible fat and oil having a content of 50 to 75% by mass (*See col. 2, ll. 60-69 and col. 3, ll. 56-60 where the oil content is from 0 to 60%. The corn and soy oils are known to a person having ordinary skill in the art to contain both oil and fat triglyceride molecules containing chains such as esterified chains of stearic acid, C18:0.*) wherein the content of protein is substantially 0% (*See col. 2, ll. 60-69 where the egg yolks and milk solids, possible sources of protein, are not required as they include values of zero.*), however, fails to expressly disclose an esterified compound composed of a potato starch or a hydrolysate thereof and an alkenylsuccinic acid and an esterified compound composed of waxy cornstarch or a hydrolysate thereof and alkenylsuccinic acid where the content of the esterified compounds is 1.2 to 2.2% by mass, the mass ratio of the esterified compound to the thickening polysaccharide is from 2:1 to 10:1 per claim 5, and the alkenylsuccinic acid is octenylsuccinic acid.

However, Qiang teaches using an octenyl succinate starch which is an esterified compound comprising a starch or hydrolysate and an alkenylsuccinic acid at 1% and xanthan gum at 0.05% in salad dressings for the purpose of improving the dispersion of the substances in the product, stability, appearance and taste (*See entire document.*). Regarding the mass ratio per claim 5 it would have been obvious to one having ordinary skill in the art to adjust the amount of esterified compound and polysaccharide, in

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combination the corresponding mixing parameters, known in the art to the above values so as to provide the desired mass ratio for the intended application since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Cain ('143) teaches the gum used in a dressing being xanthum gum at 0.4 wt % for the purpose of providing an emulsified dressing (*See col. 9, ll. 1-24.*).

Hamm ('096) teaches corn starch, waxy corn starch and potato starch as being alternative substitutes for mayonnaise-like sauce bases (*See para. 32.*) for the purpose of providing a thickened, stable sauce base (*See para. 32.*).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time Applicant's invention was made to use the above starch and gum as taught by Qiang, Cain ('143) and Hamm ('096) in Oles ('451) and the above ratios in order to provide a thickened food substance having improved stability, appearance and taste.

Regarding claim 2, Oles ('451) teaches the acid emulsified mayonnaise-like food further comprising an edible vinegar, salt and seasoning (*See col. 2, ll. 60-69 and col. 4, ll. 61-64.*).

**6.** Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oles (US 4,145,451) in view of Qiang, *The production of Starch modified by alkenyl succinic anhydrides and its use in food industry* (2000), Cain et al. (US 5,756,143), Hamm et al. (US 2003/0203096) and Chen et al., *Preparation of Starch Sodium Alkenyl Succinate* (2000).

Oles ('451), Qiang, Cain ('143) and Hamm ('096) teach the food product discussed above, however, fail to expressly disclose wherein the degree of substitution of the ester groups are from 0.005 to 0.020.

However, Chen teaches using cornstarch to prepare alkenyl succinate starch with a degree of substitution of ester groups of 0.018, 0.017, 0.007, etc. for the purpose of providing a thickened food (*See entire document.*). Furthermore, as discussed above, corn starch, waxy corn starch and potato starch have similar compositions and structures and are substantially interchangeable.

Therefore, it would have been obvious to use a starch with the substitution as taught by Chen in Oles ('451) in order to provide a thickened food.

#### **ANSWERS TO APPLICANT'S ARGUMENTS**

**7.** In Applicant's arguments (*See pp. 4-11 of Applicant's Paper filed 1/29/2010.*)

Applicant refers to the PGPUB instead of the Application as filed. Applicant is advised to refer to the Application as filed and not the PGPUB as the PGPUB is not before the Examiner. The Application as filed can be viewed in PAIR.

**8.** In response to Applicant's arguments (*See pp. 4-8 of Applicant's Paper filed 1/29/2010.*) that all of the examples in Oles ('451) use protein in the form of egg yolk and does not mention the benefits or detriments of including egg protein, it is noted that Applicant's arguments are not persuasive. Oles ('451) clearly states that the product can contain 0% egg yolk, thus, 0% protein (*See col. 2, l. 60+.*). This is the same value as claimed.

9. In response to Applicant's arguments (*See p. 8, para. 2 of Applicant's Paper filed 1/29/2010.*) that Oles ('451) does not mention the esterification of the starch, it is noted that the Examiner does not disagree and is not cited for such.
10. In response to Applicant's arguments (*See p. 9, para. 1 of Applicant's Paper filed 1/29/2010.*) that Qiang does not discuss the presence or absence of egg protein, it is noted that the Examiner concurs and Qiang is noted cited for such.
11. In response to Applicant's arguments (*See p. 9, para. 2 of Applicant's Paper filed 1/29/2010.*) that Cain ('143) does not discuss the benefits or detriments of including or not including egg protein, it is noted that the Examiner concurs and Cain ('143) is not cited for such.
12. In response to Applicant's arguments (*See p. 9, para. 3 of Applicant's Paper filed 1/29/2010.*) that Hamm ('096) does not discuss the benefits or detriments of including or not including egg protein, it is noted that the Examiner concurs and Hamm ('096) is not cited for such.
13. In response to Applicant's arguments (*See p. 10, para. 2 of Applicant's Paper filed 1/29/2010.*) that it would not have been obvious without undue experimentation to prepare the claimed formulation per claim 1 and the references do not teach the beneficial effect of the claimed formulation, it is noted that said arguments are not persuasive. As discussed above, the combined references do teach the claimed formula for the reasons explained above.
14. No further precise arguments are set forth regarding the dependent claims than discussed above.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brent T. O'Hern whose telephone number is (571)272-6385. The examiner can normally be reached on Monday-Thursday, 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on (571) 272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brent T O'Hern/  
Examiner, Art Unit 1783  
April 11, 2010